ThinkStation® S20 (4105) - TopSeller (Windows 7)

Name	Type-model	Slot x bay	Processor	GHz	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	ENERGY STAR 5.0	Win7 preload	Avail date
✂ **S20**	4105-97U	5x6	W3503	2.40	2x1GB	1333MHz	1x500GB[2]	3.5"	No	DVD±RW	Media	1xFX380	No	Pending	Pro64	Oct 09
✂ **S20**	4105-98U	5x6	W3505	2.53	2x1GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX580	No	Pending	Pro64	Oct 09
✂ **S20**	4105-99U	5x6	W3520	2.66	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX1800	No	Pending	Pro64	Oct 09
✂ **S20**	4105-P5U	5x6	E5507	2.26	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX380	No	Pending	Pro64	Oct 10
✂ **S20**	4105-P6U	5x6	W3550	3.06	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX580	No	Pending	Pro64	Oct 10
✂ **S20**	4105-P7U	5x6	W3530	2.80	1x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media		No	Pending	Pro64	Oct 10
✂ **S20**	4105-P3U	5x6	E5507	2.26	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1x2000	No	Pending	Pro64	Oct 10
✂ **S20**	4105-P4U	5x6	W3530	2.80	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1x2000	No	Pending	Pro64	Oct 10
☞ **S20**	4105-R9U	5x6	W3550	3.06	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1x2000	No	Pending	Pro64	Nov 10
☞ **S20**	4105-O1U	5x6	W3550	3.06	1x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media		No	Pending	Pro64	Nov 10
✂ **S20**	4105-O2U	5x6	W3505	2.53	1x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1x600	No	Pending	Pro64	Nov 10
☞ **S20**	4105-O3U	5x6	W3550	3.06	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1x600	No	Pending	Pro64	Nov 10

- ***These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)***

Processor	**Intel® Xeon® Processor W3503** or **W3505** with **dual-core**, 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Virtualization Technology, 1066MHz DDR3 memory controller, and 4MB cache or **Intel Xeon Processor W3520, W3530,** or **W3550** with **quad-core**, 4.8GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 8MB cache or **Intel Xeon Processor E5507** with **quad-core**, 4.8GT/s QPI, Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache
Implementation	One LGA1366 socket
Memory	**2GB** or **4GB** std, 48GB max, **UDIMM**, **PC3-10600 1333MHz DDR3*****, **ECC**, 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU *Some:* **NVIDIA® Quadro® FX 380**, PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W *Some:* **NVIDIA Quadro FX 580**, PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I****, 40W *Some:* **NVIDIA Quadro FX 1800**, PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W *Some:* **NVIDIA Quadro 600**, PCIe x16 adapter, 1GB, one DisplayPort, one dual-link DVI-I, 40W *Some:* **NVIDIA Quadro 2000**, PCIe x16 adapter, 1GB, two DisplayPort, one dual-link DVI-I****, 62W **** Only two display connectors are active at a time
Media reader	20-in-1 media reader, internal USB 2.0
SATA disk(s)	**500GB**, SATA 3.0Gb/s, 7200 rpm, 3.5"
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals
Chipset	**Intel X58 Express Chipset**, Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side-out), Optical SPDIF digital out, Optical SPDIF digital in
IEEE 1394 adptr	None
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec
Speaker	Internal speaker for business audio
Ethernet	One gigabit ethernet on planar, Broadcom® BCM5755
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black
Mouse	Optical Wheel Mouse (USB connector), black
Power supply	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])
Rack mount	Rack shelf support

Preloaded operating system[20]

- Genuine Windows® 7 Professional 64

Preloaded applications[5] (only some listed)

- Rescue and Recovery™
- Norton Internet Security™ (30 days of virus definitions)
- Microsoft Office 2010 preloaded; purchase product key to activate

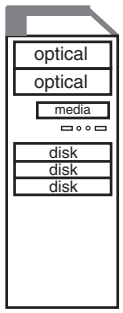
Accessories

2GB PC3-10600 DDR3 ECC UDIMM	43R2033
4GB PC3-10600 DDR3 ECC UDIMM	57Y4138
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
Blu-ray™ Burner SATA 1.5Gb/s	45K1675
ThinkVision® L2440p Wide 24" Monitor	4420HB2

Other accessories at **lenovo.com**/accessories

Tower

- Raven black color; metal case
- 6.9"W x 19.0"D x 18.8"H (with handle)
- 175mm W x 483mm D x 478mm H
- 38.5 lb (17.5kg) max configuration
- 31-liter
- Removable handle on top front
- Toolless side cover removal
- Toolless disk and optical drive removal
- Toolless adapter retention
- Illuminated front icons
- Rack shelf support



Bay ① 5.25", 1.6" high, external, std optical
Bay ② 5.25", 1.6" high, external, open
Bay ③ 3.5", 1" high, external, std media reader
Bay ④ 3.5", 1" high, internal, std disk
Bay ⑤ 3.5", 1" high, internal, opt disk
Bay ⑥ 3.5", 1" high, internal, opt disk

Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max)
Slot 2: full-length, full-height, PCIe 2.0 x4**
Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max)
Slot 4: full-length, full-height, PCIe x1
Slot 5: half-length, full-height, 32-bit PCI 2.3

** x16 mechanical

SECURITY

- Security chip (see information on left)
- Side cover lock (ships with two identical keys)
- Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)
- Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)
- Power-on password
- Administrator password
- Boot sequence control
- Boot without keyboard, mouse, diskette
- Serial port I/O control
- USB port disablement (front or all)

Supports ThinkVantage® technologies

GREENGUARD® certified
RoHS-compliant
Pending: ENERGY STAR® 5.0-compliant
EPEAT™ Gold rating

LIMITED WARRANTY[1]

- **3-year parts and labor**
- **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts[3], 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)**
- **ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty**
  - **Onsite service upgrade options (in eligible locations)**[7]
  - **Post warranty maintenance services**
- **24 hour x 7 day**[14] **toll-free support during the warranty period**[1] **via 800-426-7378**

See footnotes for important warranty information

☞ US models announced October 26 or November 2, 2010; previous models on October 22, 2009 or October 12, 2010

✂ US models withdrawn effective August, December 2010 or February, May, June 2011

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